

Appl.No. 10/023,473
Amdt.dated July 29, 2005
Reply to Office action of July 13, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A flexible hose for carrying fluids said hose having comprising a thermoplastic cover said thermoplastic cover having an interior surface and an exterior surface said interior surface having a single helical member capable of retaining its shape in said hose adhered to the interior surface of said thermoplastic cover, said helical member being comprised of a material capable of carrying a current of electricity said hose being adapted to carry a current in its helical member, said thermoplastic cover consisting essentially of a single layer of a thermoplastic material said thermoplastic cover having a conductive wire embedded in said thermoplastic layer said conductive wire being laid to one side of said helical member said hose having a first end and a second end, said hose being in a retracted position when no tensile force placed on an end of the hose and in an extended condition when a tensile force of a pulling nature is placed on an end of the hose., ~~said hose having a thermoplastic cover in the form of a single wall, said thermoplastic cover having an interior surface and an exterior surface said interior surface having a single helical member capable of retaining its shape in said hose adhered to the interior surface of said thermoplastic cover, said helical member being comprised of a material capable of carrying a current of electricity said hose being adapted to carry a current in its helical member.~~

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2. (original) The flexible hose of claim 1 wherein said hose is corrugated and has a plurality of peaks and valleys in said cover caused by said helical member that are interconnected by sidewalls that extend at an angle to the peaks and valleys and wherein said hose when in a retracted condition, the valleys are virtually eliminated and the sidewalls on opposite sides of a valley are generally in contact with each other.

3. (original) The flexible hose according to claim 2 wherein when the hose is in an at rest position, the valleys typically are generally U-shaped.

4. (original) The flexible hose according to claim 3 wherein when a pulling force is applied to an end of the hose, the valleys become wider and the angle of the sidewalls stay generally the same.

5. (currently amended) The flexible hose according to claim 4 wherein the distance from one peak to an adjacent peak in the hose is about 1/4" to 3/4" when ~~[[these]]~~ there is no force on an end of the hose and the distance from one peak to an adjacent peak is about 1/2" to 2" when a pulling ~~[[for]]~~ force is placed on an end of the hose.

6. (currently amended) A flexible hose for carrying fluids said hose ~~having~~ consisting essentially of a first end and a second end, said hose being in a retracted position when no tensile force place on

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an end of the hose and in an extended condition when a tensile force of a pulling nature is placed on an end of the hose, said hose having a thermoplastic cover, said thermoplastic cover having an interior surface and an exterior surface said interior surface having a helical member adhered thereto said thermoplastic cover being in the form of a single wall where said helical member is adhered to said interior surface, said helical member having a first side and a second side and having a conductive wire in at least one side of said helix for carrying a current, said conductive wire being disposed within said thermoplastic layer, said hose being adapted to carry a current in its helical member said helical member having a constant pitch along the length of the hose.

7. (original) The flexible hose according to claim 6 wherein there is a second conductive wire on the side of the helix opposite the first conductive wire.

8. (original) The flexible hose according to claim 6 wherein the helix is capable of conducting an electric current.

9. (original) The flexible hose according to claim 7 wherein the helix is capable of conducting an electric current.

10. (original) The flexible hose according to claim 6 wherein the conductive wire is stranded

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copper wire of a gauge in the range of about 10 to about 30 with a thermoplastic jacket as the insulation.

11. (original) The flexible hose according to claim 7 wherein the conductive wires are stranded copper wire of a gauge in the range of about 10 to about 30 with a thermoplastic jacket as the insulation.

12. (original) The flexible hose according to claim 6 wherein the helix comprises a steel wire.

13. (original) The flexible hose according to claim 7 wherein the helix comprises a steel wire.

14. (original) The flexible hose according to claim 6 wherein the helix is a thermoplastic covered steel wire and wherein on one side of said helix is a stranded copper wire of a gauge in the range of 10 to 30 with a thermoplastic jacket covering the stranded copper wire.

15. (currently amended) A flexible hose for carrying fluids said hose ~~having~~ consisting essentially of a first end and a second end, said hose being in a retracted position when no tensile force ~~is~~ placed on an end of the hose and in an extended condition when a tensile force of a pulling nature is placed on an end of the hose, said hose having a thermoplastic cover in the form of a single wall, said

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thermoplastic cover having an interior surface and an exterior surface said interior surface having a helical member adhered thereto said helical member comprising a pair of insulated conductors in a side by side relationship said hose being adapted to carry a current in its helical member said helical member having a constant pitch along the length of the hose.

16. (original) The flexible hose according to claim 15 wherein the cross section of the helix is in the shape of a figure 8.

17. (original) The flexible hose according to claim 16 wherein one of said conductors is a copper clad steel wire.

18. (original) The flexible hose according to claim 17 wherein the other of said conductors is a stranded copper wire.

19. (original) The flexible hose according to claim 16 wherein one of said conductors is a steel wire.

20. (original) The flexible hose according to claim 19 wherein the other of said conductors is a stranded copper wire.

21.(currently amended) A flexible hose for carrying fluids said hose having a first end and a second end, said hose being in a retracted position when not tensile force is placed on an end of the hose and in an extended condition when a tensile force of a pulling nature is placed on an end of the hose, said hose having a thermoplastic cover, said thermoplastic cover having an interior surface and an exterior surface said interior surface having a helical member adhered thereto said thermoplastic cover ~~being in the form~~ consisting essentially of a single wall layer of a thermoplastic material ~~[[where]]~~ wherein said helical member is adhered to said interior surface, said helical member having a first side and a second side and having a conductive wire on at least one side of said helical member said thermoplastic cover having been extruded around said conductive member.

22. (currently amended) A flexible hose for carrying fluids said hose having a first end and a second end, said hose being in a retracted position when no tensile force is placed on an end of the hose and in an extended condition when a tensile force of a pulling nature is placed on an end of the hose, said hose having a thermoplastic cover consisting essentially of a single layer of a thermoplastic material in the form of a single wall, said thermoplastic cover having an interior surface and an exterior surface said interior surface having a helical member adhered thereto, said helical member being comprised of a material capable of carrying a current of electricity so that said hose is adapted to carry a current in its helical member and wherein the pitch of said helical member is constant along the length of the hose.

23. (previously presented) The flexible hose of claim 1 wherein said hose has a pitch that is constant along the length of the hose.

24. (previously presented) The flexible hose according to claim 21 wherein there is a second conductive member on the opposite side of said helical member, said thermoplastic material having been extruded around said second conductive member.

25. (previously presented) The flexible hose according to claim 22 wherein said hose extends at least 100 percent over the fully retracted length of said hose when 10 pounds of pull is placed on an end of said flexible hose.

26. (new) A flexible hose for carrying fluids said hose being in a retracted condition when no tensile force is placed on said hose and in an extended condition when a tensile force of a pulling nature is placed on a section of said hose, said hose consisting essentially of::

a first end;

a second end;

a thermoplastic cover consisting essentially of a single layer of thermoplastic material having a thickness of between about 10 mil to 50 about mil wherein said thermoplastic cover further comprises an interior surface and an exterior surface;

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a single helical member, capable of retaining its shape in said hose adhered to said interior surface of said thermoplastic cover, said helical member being comprised of a material capable of carrying a current of electricity said helical member being capable of extending when a tensile force of a pulling nature is applied and then retracting to roughly the original shape when a force is not applied said helical member having a gauge between 12 and 21;

a plurality of peaks and valleys in said thermoplastic cover caused by said helical member, said peaks having a distance between them, said helical member being interconnected by sidewalls that extend at an angle to the peaks and valleys wherein when said hose is in a retracted condition, the valleys generally U-shaped and when a pulling force is applied to a section of said hose, the valleys become wider and the angle of the sidewalls stay generally the same.

the distance from one peak to an adjacent peak in the hose is about 1/4" to 3/4" when there is no pulling force on a section of said hose and the distance from one peak to an adjacent peak is about 1/2" to 2" when a pulling force is placed on a section of said hose;

wherein the length of said hose in said extended condition is about two to about six times greater than the length in said retracted position; and

a conductor wire, capable of carrying a current of electricity with a gauge in the range of about 10 to about 30 said conductive wire being disposed on at least one side of said helical member said thermoplastic cover having been extruded around said conductive wire.

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27. (new) The flexible hose according to claim 26 wherein there is a second conductive wire on the opposite side of said helical member, said thermoplastic material having been extruded around said second conductive wire.